

Why Argentina is Politically Unstable: Causes and Solutions

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ABSTRACT

Argentine political instability is a subject of ongoing study in the scientific literature. Argentina is seen as a paradox, a nation that does not exhibit political stability in accordance with its level of socio-economic development. This paper demonstrates that the primary cause of political instability is a widespread contempt for authority throughout Argentine society, originating during the period of the Spanish conquest and colonization of the Americas and passed down from generation to generation to the present day. This claim is substantiated through a meta-analysis of historical, genetic, and legal information, where a set of propositionally logical statements derived from factual analyses is used to establish the causality of mathematical relationships between groups of genetic and legal data. The study is complemented by a set of solutions based on the entire analysis, taking into account social factors for each specific case.

1. Introduction

Argentine political instability is a subject of ongoing study in the scientific literature. A simple bibliometric analysis shows between 200 and 400 publications on the topic in the last 50 years. Argentina is seen as a paradox, a nation that does not exhibit political stability in accordance with its level of socio-economic development.

This paper demonstrates that the primary cause of political instability is a widespread contempt for authority throughout Argentine society. This social behavior originated during the period of the Spanish conquest and colonization of the Americas and has been passed down from generation to generation to the present day.

This claim is substantiated through a meta-analysis of historical, genetic, and legal information, where a set of propositionally logical statements derived from factual analyses is

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used to establish the causality of mathematical relationships between groups of genetic and legal data.

Contempt for authority is quantified by measuring the number of violations of different laws and regulations. The Time in Office (TIO) of rulers is affected by these non-compliances, and it is used as an indicator of political instability of Argentina (Felice and Ruiz, 2023a,b). The analysis of the TIO series of rulers in Argentina from the conquest and colonisation to the present day, reveals a perennial chaotic social behaviour both in mathematical and colloquial terms.

This analysis is used to identify contempt for authority as the main cause of the observed instability. In addition, post hoc, it was proposed to separate contempt into two variants:

- 1) The contempt of the Spanish in America for the authority of the Spanish crown is a primary causal factor of political instability in Argentina.
- 2) The indigenous contempt for the authority of the white conqueror and coloniser is a primary causal factor of political instability in Argentina.

In previous works (Felice and Ruiz, 2024, 2025) both hypotheses were factually demonstrated through historical analysis and the deduction of propositionally logical statements. In another publication (Ruiz and Felice, 2025), mathematical relationships with high correlations between the genetic content of Argentina's inhabitants and the degree of violation of certain sets of laws were discovered.

The deduction that the types of contempt for authority were extended over time, distributed throughout society, and exhibited a geographic distribution by the Argentine province based on the predominant genetic content in Amerindian-African and Eurasian terms was made possible by the analysis of mathematical and historical information.

The factual findings provided causality to the mathematical findings of relationships between genetics and the violation of laws, allowing a partial demonstration of the two primary hypotheses.

To achieve the factual statements, a detailed study was first carried out on the historical origin of the Spanish contempt for the authority of the Royal Crown, as well as the indigenous contempt for the authority of the white conqueror and coloniser in America.

Among the main findings, the historical origins of smuggling and tax evasion were included, how slavery evolved into unregistered labor, the systematically higher suicide rates in cities with self-recognized indigenous populations, the genetic mix from four continents among Argentinians, the establishment of pigmentocracy as a social system, the phenomenon of the absence of significant punishment for certain violations across all social strata, and the intergenerational transmission of the violation of laws and regulations as a form of indigenous resistance spread throughout society without the cultural memory that originally gave rise to it.

Based on the analysis of the set of historical, genetic, and legal data, tailored solutions were proposed for each type of contempt for authority to be eradicated. Each set of solutions contains factors to consider and specific actions suggested for each case.

2. Material and Methods

All the data and methods used to obtain and process them had been previously defined (Felice, 2024,2025; Ruiz, 2025). These publications provide a detailed description of the

materials and methods used for the historical, legal, and genetic data sets. The various data sources used for the analysis in this publication are summarized below.

Historical data sources include:

- 1. Decrees of the Spanish Royal Crown between 1500 and Argentina's independence in 1816.
- 2. Historical documents that serve as direct testimonies of the relationships between Spaniards and indigenous peoples during colonial times.
- 3. Proofs (*Probanzas*) by Spaniards and indigenous peoples.
- 4. Documented indigenous testimonies.
- 5. Publications on historical events.
- 6. Additionally, publications in social sciences, scientific publications, and public databases are included.

Legal data sources are selected from sets of law and norm violations representing toxic social behaviours across all social classes and provinces in Argentina. The following sets of laws and regulations are included:

- 1. Electricity theft
- 2. Traffic violations
- 3. Fatal traffic accidents
- 4. Evasion of gross taxes
- 5. Evasion of property tax
- 6. Prison population
- 7. Detainees in police stations
- 8. Crimes against the economic and financial order
- 9. Crimes against public administration
- 10. Money laundering and terrorism financing crimes
- 11. Unregistered labor
- 12. Illegal street sale of products
- 13. Claims for health services
- 14. Workplace accidents
- 15. Lawsuits

Genetic markers are used to quantify the genetic composition of Argentinians, creating maps of provincial genetic composition. The process of selecting genetic markers (genetic data) to define "indigenous" and "Spanish" within a broader context of "Amerindian" and "Eurasian" is also described, along with the collection of quantitative values of the representative genetic percentage content of the inhabitants of all Argentine provinces. For each selected marker, its interpretation in terms of social behaviours is justified. Three sets of markers are considered:

- Y-DNA, which indicates patrilineal descent.
- mtDNA, which reveals maternal lineage.
- Autosomal DNA, which identifies SNP markers across chromosomes.

This publication conducts a meta-analysis that involves processing the propositionally logical statements presented in our previous publications.

For the logical analysis, logical connectors Λ (and) and \rightarrow (implies) are used to relate basic statements and identify cause-and-effect relationships. Each analysis concludes with a logical premise deduced from the facts, which serves to demonstrate the initial hypothesis through the logical analysis of the premises presented. These statements are based on evidence provided and are not mere opinions or suppositions.

2.1 Political Stability Definition

In this section concepts are defined and it is schematically shown how human behaviours are interrelated with a country's political stability. Political stability is defined as the stability over time of a ruler's tenure in office (TIO). The relationship between these concepts and the justification for using this definition had been explored in depth in other publications (Felice and Ruiz, 2023a, 2023b).

In this work, the main concepts are presented, and a diagram is provided to show how political stability and contempt for authority are related.

- The time series of a ruler's tenure in office (TIO) is regarded as an indicator of a country's political stability.
- The TIO indicator quantitatively describes the political reality of nearly all nations in the Americas and other countries such as India and Singapore, with the exception of very long-lasting dictatorships or monarchies.
- This definition replaces the construct of political stability with the quantitative indicator of politicians' stability, thus focusing the problem on individuals rather than on the abstract concept of politics. Politicians' stability is affected by the behaviour of the surrounding people, and such behaviour is dependent on their level of contempt for authority. If the level of contempt is zero, no problems arise; however, if it is greater than zero, the greater the contempt, the greater the problems.
- The time series of the periods during which a ruler remains in office is sensitive to a large number of factors. The factors can have an involuntary origin, such as illness, accident, or natural death, or they can be caused by the voluntary behaviour of others.
- Some *voluntary* factors that can affect the TIO are coups, military intervention, civil intervention, self-coups, protests, strikes, social tension, corruption, and economic or ethnic problems.
- The list of factors is extensive, such as those described by the World Bank for analysing the political stability index (Cruz, 2016), but all of them are capable of affecting the TIO.

The TIO indicator assumes that behaviours depend on the level of contempt for authority among a country's citizens. Figure 1 demonstrates the relationship between contempt for authority and the stability of rulers.

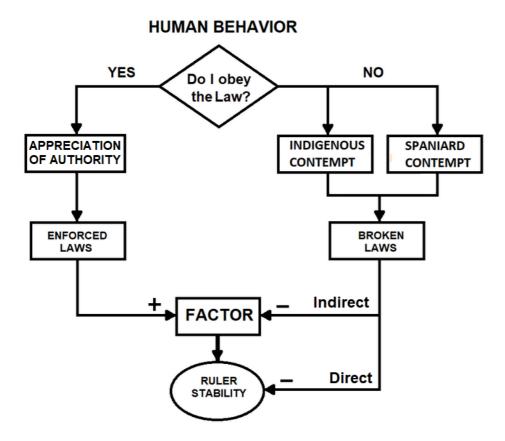


Figure 1: Relationship between contempts and ruler stability. Source: Ruiz, 2025.

Contempt, a human feeling, can manifest **directly** against a ruler, such as through a coup d'état or an assassination, or **indirectly** through a factor that influences the ruler's stability.

To understand how the direct and indirect manifestations of contempt for authority contribute to a ruler's instability, the following examples are shown in the sequence *Factor:* (D) direct or (I) indirect manifestation:

- Coup d'état: (D) violating basic constitutional laws, such as the periodic renewal of rulers.
- Assassination of a ruler: (D) violating explicit and punishable prohibitions by law, such as regicide or illegal possession of weapons.
- Indefinite re-election: (I) violating the number of re-elections allowed by law.
- Terrorism: (D) violating criminal code laws, national security, border control, international conventions, or human rights among others.
- State terrorism: (I) when the state violates its own laws.
- Tax evasion: (I) violating tax laws, committing tax fraud, economic crimes, or international treaties among others.
- Territorial claims: (I) violating the constitution, indigenous policy laws, territorial usurpation, or international treaties.
- Labour strikes: (I) violating labour laws and regulations.
- Non-productive government expenditures: (I) violating laws on budget execution, misuse of public funds, corruption in public administration, lack of transparency, manipulation of financial reports, or public ethics laws among others.

Except for natural phenomena or external invasions, the factors used to estimate a country's political stability always contain a human component: the appreciation or contempt for authority.

2.2 Genetic and Legal Meta-Data

In a previous publication (Ruiz, 2025), the mathematical relationships between the genetic composition of Argentina's inhabitants and the level of non-compliance with laws and regulations were analyzed. Using linear correlation analysis and cluster analysis, it was shown that there is a linear correlation between certain toxic social behaviours of Argentinians and their Amerindian or European genetic composition. The main findings are presented below:

- 1. The provinces showing maximum non-compliance values are in the northern and southern regions of the country and in CABA (Autonomous City of Buenos Aires)
- 2. On average, the highest non-compliances mainly occur in the northern and southern provinces of the country and to a lesser extent in the central provinces. CABA is the population showing the highest number of non-compliances.
- 3. Argentina has people with a range of skin tones, where a unique blend of Amerindian, European, Asian, and African genes has come together.
- 4. There is a high linear correlation between the total Amerindian and African genetic content and the violation of three laws (1-PTC, 1-VFI and Fatality).
- 5. There is a relationship between the breach of laws and the geographic location of provincial capitals, and this relationship is particularly linear in the case of 'unregistered workers'.
- 6. There is a significant baseline level of non-compliances in all provinces. This implies that, from a social perspective, all inhabitants of the Argentine Republic violate laws with a significant baseline value.
- 7. The cluster analysis shown that the northern provinces (NOA and NEA) forming cluster 1, the southern provinces (Chubut, Santa Cruz, and Tierra del Fuego and South Atlantic Islands) forming cluster 3, and the rest of the central provinces forming cluster 2, exhibit homogeneity within their respective clusters and heterogeneity with respect to the other clusters regarding the studied characteristics (genetic material, geographical location, and levels of non-compliance with laws that did not show explicit linear correlation).

2.3 Historical Meta-Data

2.3.1 Spaniard Contempt and Pigmentocracy

The following logical statements are deduced from the factual analysis.

- 1. The violations of the Royal decrees did not have significant punishments
- 2. The inefficient communication between Spain and America facilitated non-compliance with the Royal decrees.
- 3. The violations of the Royal decrees regarding indigenous people cemented pigmentocracy in Argentina.
- 4. The absence of punishments cemented toxic social behaviours across generations, giving rise to the current contempt for authority.

2.3.2 About Pigmentocracy

In a publication (Felice, 2025), it is shown that a set of toxic social customs has been passed down through generations, forming the foundation of the current pigmentocracy. Figure 2 illustrates how the main violations of laws and regulations associated with pigmentocracy persist over time.

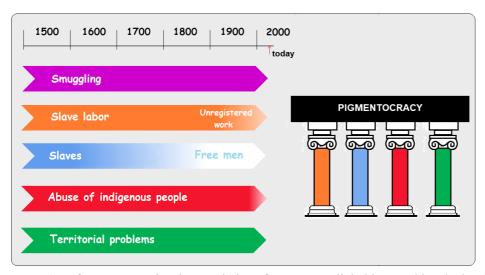


Figure 2: Left: Intergenerational transmission of customs. In light blue to white, the legal abolition of slavery in 1853 is shown, giving rise to free men; and in brown, the transformation of slave labor during the conquest and colonization into present-day Unregistered work. **Right:** Customs forming the basis of pigmentocracy.

2.3.3 Indigenous Post Colonial Stress Disorders: Suicides

A key finding demonstrating the persistence of pigmentocracy and its impact on Argentina's democratic stability is the markedly higher suicide rate in cities with registered Indigenous communities (Felice, 2024).

Figure 3 presents the number of suicides per interval, where each interval consists of pairs of cities with the same population size, but only one includes self-declared Indigenous people as part of a recognized Indigenous community.

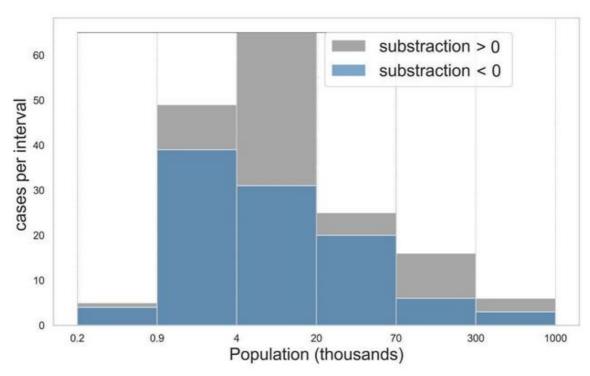


Figure 3: Total number of suicide cases per analyzed interval. Source: Own processing based on official data.

Figure 3 demonstrates the existence and persistence of pigmentocracy in Argentine society, reflected in a dramatic increase in the suicide rate among Indigenous peoples, who are, factually, citizens of the Argentine Republic.

3. Results

The results of this study are grouped into three main sets:

1. Evolution of Colonial Law Transgressions into Modern Law Violations

This section identifies the behavioral patterns that gave rise to contempt for authority and analyzes how these patterns evolved and migrated over time.

2. Macro Analysis of High Linear Correlation Mathematical Relationships

This section deepens the analysis with an ethnic focus, exploring high linear correlation relationships between specific types of legal non-compliance and the genetic composition of inhabitants across Argentina's 24 jurisdictions.

3. Global Logical Analysis of All Previously Obtained Information

In this final section, the initial hypotheses are demonstrated by condensing all obtained results into propositionally logical statements.

3.1 Evolution of Colonial Law Transgressions into Modern Law Violations

To establish whether some of the current violations of laws and regulations in Argentina originated in social behaviours that emerged during the conquest and colonisation of

America, the connection and parallels between the violations of decrees of the Spanish Royal Crown and the violations of laws and regulations in the 21st century are analysed.

The legal and historical data sources had been extracted from three previous works (Felice and Ruiz, 2024, 2025; Ruiz and Felice, 2025), where the violations of the decrees of the Spanish Royal Crown and a set of laws and regulations in force in 21st-century Argentina had been described in detail. All the information is distributed across a set of three publications and supplementary material, also available in the *Supplementary material* section of this work. The violations of the Royal Decrees are grouped according to their Spanish or indigenous origin.

The violations or transgressions by the Spanish refer to the disobedience of the Spanish in America to the obligations imposed by the decrees of the Royal Crown. The primary causes that enabled these violations had been the lack of control and punishment of the conquerors and colonists, and a complex bureaucracy centralised in Spain, which slowed down administrative procedures (Felice and Ruiz, 2025). In the first case, the vast distances between Spain and its American colonies and the deficient means of communication at the time had made efficient control mechanisms impractical. Additionally, the centralised power of the Royal Crown had kept the colonies dependent on Spain to such an extent that only 266 years after the founding of the first city in Argentine territory, the Spanish in America declared independence from King Ferdinand VII of Spain.

The violations of royal decrees by the indigenous populations refer to their non-compliance with labour, tax, and cultural obligations imposed by the Spanish Crown. In the particular case of cultural obligations, examples include the prohibition against maintaining their religions, cultural practices, or languages. The indigenous violations began after being subjugated by force, as a form of resistance to the conqueror and coloniser. Since the causes that originated these behaviours remained, the violations were transmitted across generations and spread throughout society (Felice and Ruiz, 2024).

In this work, it is shown that colonial transgressions are the predecessors of current violations of laws and regulations. For the analysis, a wide spectrum of violations is examined, including the quantification of sets of violations of the Civil and Penal Codes of the Argentine Republic. The data obtained are derived from individuals from all social strata in Argentina, and there is no differentiation based on individual or social factors, except for the province of origin of the data.

Table 1 details the sets of colonial and current violations that share behavioural patterns, ordered by their Spanish or indigenous origin. In each case, the similar behaviours are highlighted, you can see the Appendix (Supplementary material S1 Social Pattern Time Evolution).

In the colonial case, the behavioural patterns are deduced from the sets of logical statements from historical analysis (Felice and Ruiz, 2024, 2025) for both Spanish and indigenous behaviours. In the case of the patterns of current violations of laws and regulations, these are deduced from the legal definitions indicated in official Argentine documents.

The similarities between both sets of behavioural patterns are what allow the colonial origin of a type of violation and its modern version in the 21st century to be grouped in the same row of Table 1. In this Table the sets of indigenous and Spanish violations and 21st-century laws are shown, which are analysed in terms of relationship and historical parallels. In the analysis of the table, the double-origin violations were taken into account. This means that both types of contempt for authority were mixed in the violations.

In mathematical terms, mathematical correlations were found in 3 out of 16 relationships between the analyzed genetic and legal data. The possible causes for the lack of mathematical correlation were:

- 1. Both types of contempt for authority were widespread throughout society, with varying levels depending on their cultural context.
- 2. The asymmetric distribution of economic power due to pigmentocracy (Lynn, 2008) could lead to the overrepresentation of one type of violation. This could mean that a province with a majority Amerindian genetic composition might exhibit the opposite behaviour from what was expected.
- 3. "Corrupted" data due to corruption, lack of statistics, unreliable or biassed data also prevented significant correlations.

However, despite some violations of laws showing no mathematical correlation with genetic content (Ruiz and Felice, 2025), similar patterns of behavior were observed in maps that visually aligned with their respective genetic distribution maps. This was because the absence of significant correlations did not imply the absence of similar behaviours.

3.2 Macro Analysis of High Linear Correlation Mathematical Relationships

In a previous publication, whether significant mathematical relationships existed between the total Amerindian+African genetic content (TAA) and various legal and regulatory violations was examined. It was called total because it was the sum of autosomal, mtDNA, and Y-STR percentages.

The following violations were analysed: 1) Electricity theft, 2) Traffic violations, 3) Fatal traffic accidents, 4) Evasion of gross taxes, 5a) Evasion of property tax, 5b) Vertical Fiscal Imbalance, 6) Prison population, 7) Detainees in police stations, 8) Crimes against economic and financial order, 9) Crimes against public administration, 10) Money laundering and terrorism financing crimes, 11) Unregistered labour, 12) Illegal street sale of products, 13) Claims for health services, 14) Workplace accidents, and 15) Lawsuits.

The linear correlation analysis of TAA versus each of the laws violated did not produce significant values, except in cases 3, 5a, and 5b. Case 5a referred to a citizen's failure to pay taxes, while 5b referred to the state's failure to collect the tax. No significant correlations were obtained in the other violations.

In this paper, a detailed analysis is conducted on two particular types of non-compliance: **Fatalities in traffic accidents** and **Unregistered labour**. In the first case, the analysis is deepened by considering only the Amerindian genetic composition, instead of the total Amerindian genetic composition analyzed previously. In the second case, a heuristic analysis of all the information (Felice, 2023a,b; Ruiz, 2025; Felice 2024, 2025) indicates that there should be a correlation, which is why the indicator is redefined.

3.2.1 Fatalities in Traffic Accidents

In the specific case of the number of fatalities per ten thousand registered vehicles against the total Amerindian+African genetic content, the result showed a relationship of R²=0.305 (CC=0.55), which was a low correlation value for demonstrating the proposed hypotheses.

To improve this indicator, only the Amerindian mtDNA genetic content was proposed to be used. This was done because the proportion of mtDNA genes showed significantly higher values than autosomal and Y-STR contents. Among individuals from Argentina's 24

provinces, Amerindian autosomal genes fluctuated between 9% and 53%, Amerindian mtDNA genes between 41% and 95%, and Amerindian Y-STR genes between 0% and 29%.

It was observed that Amerindian mtDNA content was present in large proportions across all Argentine provinces. This meant that Amerindian women were overwhelmingly the majority in the early couples during the conquest and colonisation of Argentina. The wave of European immigrants in the late 19th and early 20th centuries did not significantly alter these figures, as the proportion of men among the immigrants was higher than that of women. The large proportion of mtDNA genes not only implied the transmission of genotypic and phenotypic characteristics to offspring, but also, from a social point of view, the transmission of social habits and customs through the female lineage.

This was the reason why only the proportion of mtDNA genes in the population was used as an indicator of the presence of customs inherited from Indigenous behaviours. Our hypothesis was that the higher the Amerindian genetic content, the greater the non-compliance with certain laws and regulations. This topic was examined in depth in another publication by our research group (Ruiz and Felice, 2025). Figure 4 showed the relationship between Amerindian mtDNA genetic content and the fatality rate per 10,000 registered vehicles.

The values were shown in the supplementary material S7 Genetic and Legal file included in the Ruiz and Felice, 2025 publication.

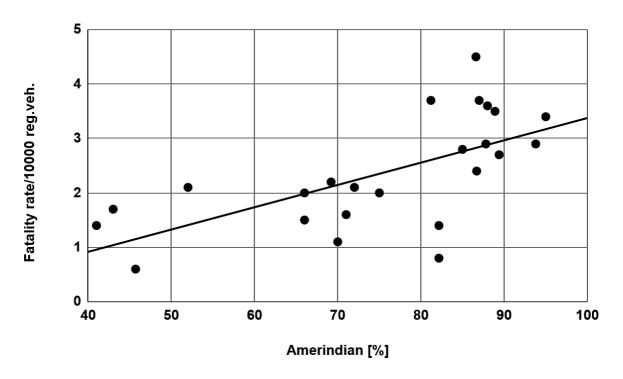


Figure 4: Fatality rate (FR) vs mtDNA amerindian

In Table 2, regression line, correlation analysis and statistical significance are shown.

Regression line: $Fatality = 0.041 \, mtDNA - 0.724$

Table 2: Regression line and Correlation analysis

All provinces		Fatalities rate /10 ⁴ registered vehicles
mtDNA	Pearson Correlation	0.644^{*}
	Sig. (2 tailed)	0.001
	N	24

^{*}Correlation is significant at the 0.01 level (2-tailed)

This significant value would allow this indicator to be used as a good gauge of social behaviour. Traffic fatalities have no historical precedents because current means of transportation have no historical equivalents.

3.2.2 Unregistered Labour

In a previous publication (Felice, 2025), it was proposed that slave labour from the early days of the conquest and colonisation evolved into modern unregistered labour. This was described as a violation of royal decrees by the Spanish in America which prohibited slave labour. For example, in the Royal Provision of Barcelona issued on November 20, 1542, by King Charles I of Spain, the enslavement of Indians was explicitly prohibited. Likewise, in the First Law of July 17, 1622, issued by King Philip IV, the personal service of Indians in the Kingdom of Chile was also prohibited (Charles II, 1841). Both laws were not enforced by the Spaniards in America.

Previously, no mathematical relationship was found between unregistered labour and the genetic content of the inhabitants in the 24 jurisdictions of Argentina (Ruiz and Felice, 2025). In that work, the values provided by a report from the Central Bank of the Argentine Republic were used as *Unregistered Labour*.

However, considering historical background, a significant positive relationship between *unregistered labour* and Amerindian genetic content would be expected. Such a relationship would highlight the persistence of social customs inherited from colonial times. Since this relationship was not found, to resolve the apparent paradox, this publication employs a more representative indicator of the problem: the *registration status of workers at the time of inspection* by province (Registration Status, RS%). This value is defined as the cumulative number of unregistered workers from 2005 to 2022 relative to the total number of workers in the establishments surveyed.

Inspections are carried out unexpectedly and without prior notice to the employer. The values used for the analysis are available in the <u>Boletín de Estadísticas Laborales</u> provided by the Argentine government and in the supplementary material S2 Unregistered Labour.

The relationship between Amerindian mtDNA genetic content in Argentina's 24 jurisdictions and the RS% indicator is shown in the Figure 5.

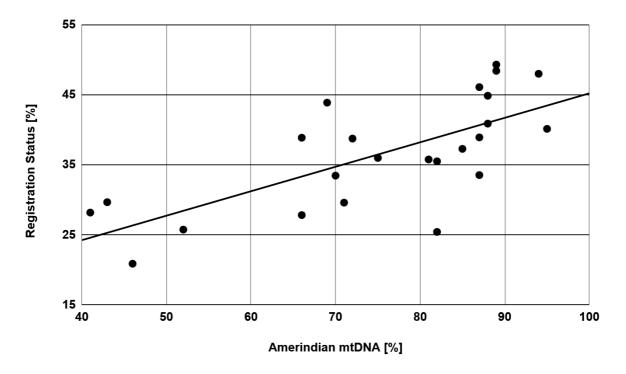


Figure 5: Registration Status vs mtDNA amerindian.

In Table 3, regression line, correlation analysis and statistical significance are shown.

Regression line: y = 0.349 x + 10.296

Table 3. Correlation test to evaluate the association between mtDNA and Registration Status RS%.

All provinces		RS%
	Pearson Correlation	0.71^{*}
mtDNA	Sig. (2 tailed)	0.000
	N	24

^{*}Correlation is significant at the 0.01 level (2-tailed)

This highly significant value would allow this indicator to be used as a very good gauge of social behaviour.

3.2.3 Rural Unregistered Labour

The issue of *unregistered labour* is even more clearly defined as the modern version of colonial slave labor when focusing exclusively on unregistered rural workers. In a study by Paz (2011), the percentage of unregistered workers (TNR%) relative to the total employed population was measured in the provinces of Northwest Argentina (NOA), including Jujuy, La Rioja, Salta, Santiago del Estero, and Tucumán. To obtain these figures, inspectors arrived at rural establishments without prior notice, recording both the contractual conditions between workers and employers, as well as working conditions such as dormitories, working hours, sanitation facilities, and dining areas, among other aspects.

Table 4 presents the TNR% values exclusively for the rural sector compared to the *Registration Status* percentage from Figure 3, which is a more general indicator of unregistered labor, also including rural work.

Table 4: Unregistered workers in percent and Registration Status in percent. Source: Paz, 2011; Boletín de Estadísticas Laborales

Province	TNR (%)	Registration Status (%)
Jujuy	72	40
Catamarca*	65	48
La Rioja	91	41
Salta	62	48
Santiago del Estero	90	46
Tucumán	78	36

*Source: Web newspaper by Agronoa 2023

The percentages for rural workers are significantly higher than those for the rest of the employed population. The issues associated with these figures are so severe that they also include reports of human trafficking and child labor. This information can be verified through government agencies and various public and private entities by simply searching "trabajo ilegal en el campo site:.ar" on Google.

The fact that *unregistered labour* increases with the percentage of Amerindian genetic content across Argentina's 24 jurisdictions can be interpreted as the persistence of the custom of mistreating and disregarding Indigenous people. In the 21st century, this is reflected in higher rates of informal employment in provinces with a greater proportion of Amerindian mtDNA genetic content.

Due to the lack of statistically significant correlation, the following non-compliance issues were not analyzed in this study:

- 1. Electricity theft
- 2. Traffic violations
- 3. Evasion of gross taxes
- 4. Prison population
- 5. Detainees in police stations
- 6. Crimes against the economic and financial order
- 7. Crimes against public administration
- 8. Money laundering and terrorism financing crimes
- 9. Illegal street sale of products
- 10. Claims for health services
- 11. Workplace accidents
- 12. Lawsuits
- 13. Intellectual property evasion

The lack of correlation is due to multiple factors, including the absence of data, unreliable data, saturated systems (e.g., *prison population*—Ruiz, 2025), the convergence of toxic Spanish and Indigenous customs within a population, and widespread non-compliance (e.g., *Intellectual Property evasion*).

3.3 Global Logical Analysis of All Previously Obtained Information

3.3.1 Validation of Initial Hypotheses

In this section, the causality between genetic and legal variables showing a linear correlation or statistical relationship is demonstrated. Causality is based on propositionally logical statements derived from the historical, psychological, and sociological analysis conducted previously (Felice, 2024, 2025; Ruiz, 2025). We begin by presenting a logical analysis based on the previously obtained logical statements and the results of the mathematical analysis.

3.3.2 Statements in Terms of Propositional Logic

Taking into account all the historical, sociological, and psychological information of indigenous peoples, conquerors, and colonizers, we can assert that the underlying cultural roots when an individual violates a law or norm can be described with the following sequence of propositionally logical statements:

3.3.3 About Pigmentocracy

- 1. The extensive mixing between male Spaniards and indigenous women blurred ethical boundaries between white and indigenous people.
- 2. Argentina is home to people with a variety of brown skin tones, resulting from a unique blend of Amerindian, European, Asian, and African genetic influences.
- 3. The skin color gradient resulting from ethnic blending forms the basis of pigmentocracy, a social system where wealth and status depend on skin color.
- 4. The skin color gradient and the pigmentocracy system have persisted over time.

3.3.4 Regarding Indigenous Contempt for the Authority of the White

- 5. The indigenous contempt for authority was born as an indirect form of resistance.
- 6. Indigenous resistance to authority is manifested by non-compliance with laws and regulations.
- 7. The violence exerted by the conquerors and colonisers had traumatic effects on the indigenous peoples.
- 8. High suicide rates in Indigenous populations are a manifestation of colonialism.
- 9. During the conquest and colonization of the Americas, Indigenous people had access only to limited education for practical purposes.
- 10. Pigmentocracy is a toxic social custom that originated during the conquest and colonization of the Americas.
- 11. Indigenous contempt for authority is a social toxic behaviour that was transmitted across generations.
- 12. Pigmentocracy affects the entire society and is a source of non-compliance with laws and regulations.
- 13. The traumatic effects of the mistreatment of indigenous peoples persist into the 21st century.
- 14. Educational discrimination persists in the 21st century and affects not only indigenous peoples.
- 15. The high suicide rates in the Indigenous communities of Argentina in the 21st century indicate the persistence of the causes that generate contempt for authority.

3.3.5 Regarding the Spanish Contempt in America for the Authority of the Royal Crown

16. Communication between America and Spain in the 15th, 16th, and 17th centuries was highly inefficient, and along with an enormous bureaucracy, it contributed to the non-compliance with royal decrees.

- 17. The Spaniards in America abused Indigenous workers and did not receive significant punishment for this behavior.
- 18. The Spaniards in America did not treat the Indigenous people as free men and did not receive significant punishment for this behavior.
- 19. The Spaniards in America illegally appropriated the territories of the Indigenous people and did not receive significant punishment for this behavior.
- 20. The Spaniards in America did not treat the Indigenous people well and did not receive punishment for this behavior.
- 21. The Spaniards in America smuggled goods, violating the Royal Crown's monopoly, and did not receive punishment for this behavior.
- 22. Spaniard contempt for authority is a social toxic behaviour that was transmitted across generations.

3.3.6 Regarding Legal and Genetic Data

Contempt for authority is reflected in practice through the violation of laws and norms, culturally originating in indigenous contempt for the white man's law and the Spanish contempt in America for the authority of the Royal Crown in Spain. To quantify these contempts and understand their historical origins, violations of different sets of laws are measured, and the percentage genetic contents of Argentines are quantified based on their American, Eurasian, and African origins.

The data on fatalities in traffic accidents and unregistered labor were reprocessed in this publication, linking them specifically to Amerindian mtDNA genetic content. This variant allowed for a higher statistical correlation in both cases. The results are expressed as factual statements and are as follows:

3.3.7 Legal Data

- 23. Provinces showing maximum violation values are located in the northern and southern regions of the country and in CABA (Autonomous City of Buenos Aires).
- 24. On average, the highest violations occur in the provinces of the north and south, and to a lesser extent in the central provinces.
- 25. CABA is the jurisdiction showing the highest number of law violations.
- 26. There is a high linear correlation between the Amerindian mtDNA genetic content and the number of fatalities per ten thousand registered vehicles.
- 27. There is a high linear correlation between the Amerindian mtDNA genetic content and Unregistered labour.
- 28. In the case of unregistered rural labor, the evidence indicates that, on average, it is 33% higher than the general unregistered labor indicator.
- 29. There is a high linear correlation between the total Amerindian and African genetic content and the violation of two laws (1-PTC, 1-VFI).
- 30. There is a significant baseline level of non-compliances in all provinces. This implies that, from a social perspective, all inhabitants of the Argentine Republic violate laws with a significant baseline value.
- 31. In Argentina, we can distinguish between northern, central and southern zones, which have in common genetic material, geographic location and levels of non-compliance

with laws. These laws are the ones that did not show a significant correlation with the genetic variables (See *On cluster analysis* section).

3.3.8 Genetic Data

- 32. Provinces of Córdoba, Santa Fé, Buenos Aires, and CABA constitute a central Argentine geographic core with a Euroasiatic genetic content > 90%.
- 33. From the core, Amerindian and African genetic content increases radially in any direction from a minimum of 50%.
- 34. The entire country possesses a total Amerindian and African genetic content between 40% and 100%.
- 35. The entire analyzed Argentine population possesses an autosomal African content between 3% and 24%.
- 36. The entire analyzed Argentine population possesses an autosomal Amerindian and African genetic content between 18% and 50%.
- 37. The entire analyzed Argentine population possesses a total European and Asian genetic content ranging between 50% and 100%, con un franco predominio del gen Y-STR.
- 38. The Argentine population is a highly heterogeneous mixture of Amerindian, European, Asian, and African genes.

4. Discussion

In this section, the underlying causality in the mathematical relationships found is analyzed and justified, through a global analysis of all the information previously generated.

4.1 Analysis of the Relationship between Legal and Genetic Data

- Provinces with higher Amerindian and African genetic content show peaks in violation rates for Property Tax, Incarcerated Population, Unregistered Labor, Detainees in Police Stations, Tax Inefficiency, Fatality Rate, Electricity Theft, Vertical Fiscal Imbalance, and Accidents at Work.
- Statements 1 to 15 about the origin of indigenous contempt for the authority of the white serve as the historical foundation for the legal results stated in items 24, 26 y 29., i.e., stablishing causality. This can be interpreted as the intergenerational transmission, first of contempt for the authority of the white, then contempt for the laws issued by the white, which transforms, after the loss of cultural memory and genetic mixing, into contempt for authority. This type of contempt is more pronounced in the northern and southern regions of the country and is genetically supported by items 33 a 36, demonstrating a higher Amerindian-African genetic content. It is expressed in practice through violations of laws and norms mentioned in the items 24, 26 and 29.
- Based on the previous item, the underlying type of social behavior can be summarized with the expression "acknowledged but not followed because it is not my law (se acata pero no se cumple porque no es mi Ley)".

- In the analysis of violations in agriculture and intellectual property, there is a total absence or a negligible number of individuals convicted or sanctioned for these violations.
- Córdoba, Santa Fé, Buenos Aires, and CABA have the lowest Amerindian and African genetic content and the highest Euroasiatic content, as confirmed by items 32 and 37. These provinces are characterized by the following violations:
 - CABA is the only jurisdiction among the four that shows broken laws peaks, including Money Laundering, Administrative Crimes, Traffic Infractions, Illegal Trade, and Health Claims, as described in item 25. The rest do not have broken laws peaks in the analyzed datasets.
 - The overall analysis of the provinces of Córdoba, Santa Fé, and Buenos Aires shows the following characteristics:
 - They do not show broken laws peaks in any of the analyzed violations.
 - They form a geographical core with the highest Euroasiatic genetic proportion.
 - There is an absence of significant punishments for violations, reflected in the lack of convicts for tax evasion in agriculture. These provinces are responsible for over 75% of Argentina's cereal and oilseed exports.
 - o In the case of intellectual property, although regulations explicitly state that agents should report technically or scientifically novel results (see "Non-compliance with intellectual property laws and regulations" in S5 Legal selection supplementary material in Ruiz and Felice, 2024), there are no significant patents (<2/year) observed in the analyzed period resulting from all the researchers of CONICET in Argentina. In this area, apparently, there are no offenders because there are no sanctions for these behaviours. Scientists from this core and CABA represent 77% of Argentine researchers.
 - Based on the described observations, the underlying social behavior can be summarized with the expression "I obey but I do not execute because there is no punishment (se acata pero no se cumple porque no hay castigo)."
 - When analyzing the province of Buenos Aires, it should be noted that the metropolitan region around CABA, with millions of inhabitants, contains migrants from all provinces of the country after successive crises since 1930. This migratory flow resulted in 25% of the population of the province of Buenos Aires coming from the interior of the country in 1947, reaching 28% in 2001 according to provincial statistics. The figure is even higher since it only counts those born in another province, without considering that genetically many born in Buenos Aires are children of someone from a province. It is expected that their social behaviours are more similar to those of the northern and southern provinces of Argentina. Unfortunately, we do not have specific statistics for this area, except for a few genetic samples (Avena, 2012) that support our assertion, albeit as evidence.
- All provinces show a significant baseline level of violations, expressed in the result of item 30. The Argentine population is the result of a large genetic admixture expressed

in item 38, which diluted genetic boundaries. For this reason, all inhabitants of Argentina can exhibit both types of violations, depending on the level of violation in each case on the individual's position in the social scale generated by pigmentocracy expressed in items 1 to 4.

• The origin of social discrimination typical of pigmentocracy was the Spanish contempt for the indigenous. Consequently, pigmentocracy can be considered an effect and not a cause of this discrimination. This concept implies that to eliminate pigmentocracy, one must culturally address the cause, directing public policies to break cultural stereotypes.

4.2 On Cluster Analysis

Among the analyzed data, there were sets of legal data that did not show a significant correlation with genetic data. To overcome this apparent lack of mathematical relationship between data sets, algorithms organizing items into groups or clusters have been employed. The results obtained allowed grouping sets of provinces that show similar geographical, genetic, and behavioral characteristics.

Considering all the maps previously presented (Ruiz, 2025), a common distribution pattern emerges. As shown in Figure 1, the region map is similar to maps of violation peaks, average behaviours, total Amerindian and African genetic load, and total European and Asian genetic load.

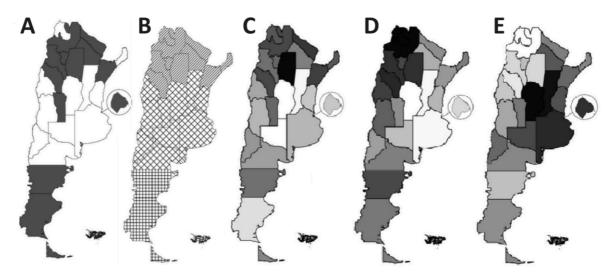


Figure 6: Maps of A) Violation Peaks, B) Regions, C) Average Breach of Laws, D) Total Amerindian and African Genetic Load, and E) Total European and Asian Genetic Load.

The similarity in distributions between genetic maps and violations is consistent with the results found through formal mathematical analysis. For example, the provinces in the north, south, and those surrounding the core present similar averages of violations (shades of gray) to the shading of total Amerindian and African genetic load.

4.3 Analysis of Pigmentocracy

The concept of pigmentocracy in our context serves to explain the continuous transition of social behaviours between extreme forms of contempt. On one extreme, there is indigenous contempt for white authority, reflected, for example, in the higher number of incarcerated individuals and tax evaders with a higher Amerindian+African genetic content. On the other

extreme, there is the Spanish heritage of contempt for authority, reflected, for example, in white-collar crimes or violations of intellectual property laws. Between these extremes, there is graduality, with the same individual sometimes violating laws or norms, expressing both types of contempt for authority in practical terms. This dual behavior is evident in maps of violations, as all provinces show quantitative values for both types of contempt for authority.

The effect of the persistence of pigmentocracy in pre and post-colonial Argentine society has had and continues to have measurable effects that impact the development of the independent country. What initially were forms of resistance against conquerors and colonizers transform, after the loss of cultural memory, into violations of norms and laws that hinder the country's stability.

Pigmentocracy is the result of a biased conception of others based on prejudices, which has remained unchanged in Argentine society for hundreds of years. Being a habit with deep cultural roots, attempting to change it by prohibiting or limiting its effects only through laws would not have practical effects, as it requires profound cultural changes beforehand.

An example of how difficult it is to change a custom is the attempts by U.S. society to reduce the number of deaths from mass shootings. Research on the topic shows that U.S. states with more permissive gun laws and higher gun ownership have higher rates of mass shootings (Reeping, 2019). However, despite the figures indicating the toxicity of the gun-carrying custom (Zeoli, 2019), there are, at least in the reviewed literature, no profound attempts to change a custom they consider part of their social identity (Lacombe, 2019).

4.4 Identity in Conflict: Indigenous or Argentine

Argentine society is deeply admixed. Despite the existence of officially recognized sets of indigenous peoples and communities by the Argentine state, the boundaries between indigenous and non-indigenous are blurred depending on the adopted perspective. This means that in genetic, phenotypic, and cultural terms, there is a continuum without clear limits because there are individuals who do not recognize themselves as indigenous, but genetically and phenotypically may be so to a significant extent. Moreover, they may partially share the Spanish Andean language and celebrate indigenous rituals or customs.

This diffuse duality manifests itself in territorial conflicts, a highly complex issue with a wide variety of situations regarding land ownership. In the Argentine North, which includes the provinces of Jujuy, Salta, Tucumán, Catamarca, Santiago del Estero, Chaco, Formosa, Corrientes, and Misiones, there are requests for the recognition of rights over lands of indigenous communities, occupation of fiscal and private lands, precarious sharecropping with land transfer through informal agreements, possession of communal fields linked to ancient royal grants during the colonial period, undivided successions, legally complex condominium divisions, and finally, occupation of protected natural areas with permits or as intruders occupying reserve areas or parks.

In this complex panorama of territorial conflicts, those involved may be self-recognized indigenous descendants of original peoples or Argentine citizens who do not recognize themselves as indigenous. In Argentina, "originario" refers to a group of people who identify themselves communally as an *originary people*.

However, the difference between "originario" and Argentine citizen may not exist from a genetic perspective. The previous results from our working group show that across the country, the Amerindian and African autosomal genographic profile fluctuates between 18% and 50%. These figures indicate a society where, genetically speaking, there are almost no pure Euroasiatic and Amerindian individuals; instead, there are Argentines resulting from

centuries of genetic flow. Among the sets of genetic measurements analyzed from 190 Argentine localities, in only 10 locations did we find that 100% of the samples had maximum mtDNA (Amerindian in Jujuy and Catamarca) and Y-Chromosome (Eurasian in Entre Ríos, Santa Fe, and Catamarca; and Amerindian in Formosa). In both sets of cases, the genetic marker refers to maternal and paternal lineages, while the autosomal, which primarily defines phenotypic characteristics, fluctuates between 18% and 50%, as mentioned earlier.

This characteristic unique to Argentines can manifest itself in situations that may seem paradoxical or absurd to an external observer. For example, a rural landowner who does not recognize themselves as indigenous could have a higher Amerindian genetic content than other individuals claiming land and self-identifying as indigenous. This may be happening among people claiming land; for instance, between 2007 and 2008, the rural indigenous population involved in 81 territorial conflicts was 54% of the total, but there was also a 32% of non-indigenous peasants who also sought access to land or wanted to retain the land they possessed (Domínguez, 2009).

As previously emphasized, the existence of *formally* recognized indigenous peoples by the state does not mean that pigmentocracy affects only them. Those descendants of original peoples who socially mixed with Euroasiatic immigrants, both pre and post-colonial, and are now part of the Argentine citizenry, also experience the effects of pigmentocracy to varying degrees. However, in this area, the boundaries are blurred, cultural memories mix, some people emphasize only their Euroasiatic component, losing sight of their American roots, while others, more recently, begin to recover their indigenous and African memories.

The current indigenous peoples are an extreme case of the complex issue of indigenous people in Argentina. The novel vision of the Spanish Crown at the time, validating relationships between Spaniards and Amerindians, had a profound effect that propagated to our days. The indigenous peoples in 21st-century Argentina, despite being socially isolated, are not genetically isolated. Their lack of belonging to Argentine society arises from the lack of cultural recognition of their existence and the contempt of a society that isolates them as an extreme case of pigmentocracy. Isolation will persist as long as the forms of pigmentocracy affecting them are maintained.

It is very possible that the simple equality of rights and opportunities will bring them out of isolation, making their vision of their role in Argentine society similar to that of any citizen: "I am an Argentine with Diaguita/ Huarpe/ Italian/ Congolese/ Mapuche/ Wichi/ Guaraní/ Spanish/ Swiss/ German roots," etc.

We must not lose sight at any time that in Argentina, the boundaries between "originario" and Argentine are blurry. In Argentina, news is common where litigants in territorial conflicts are separated into indigenous and criollos (descendants of European settlers), but as shown previously (Ruiz, 2025), non-self-recognized indigenous peasants could have a higher Amerindian-African genetic load than those self-recognized as indigenous. An individual declaring belonging to an indigenous community does not necessarily imply genetic or cultural purity.

5. Suggested Solutions

Based on everything discussed, two sets of specific solutions are presented below for each type of contempt for authority. In each case, factors to consider are proposed first, followed by specific solutions.

5.1 Solutions to Eliminate Pigmentocracy

Solutions may include new cultural guidelines seeking to internalize indigenous and African worldviews as part of the Argentine identity, as well as recognizing the rainbow of skin colors among Argentinians. An example in this direction is the restitution or repatriation of bodies, such as the case of the restitution of the remains of the Mapuche-Tehuelche chief Modesto Inakayalm, the first one formally ordered by Law No. 23,940 in 1991. During the return to his place of origin, there were military honors at the Esquel airport, followed by rituals conducted by machis while sowing wheat seeds and water during the procession. In the mausoleum, the urn was wrapped in the Argentine flag and covered with stones in the style of a chenque (Endere, 2011). Indigenous descendants accepted the military honors as a recognition of Inakayal's hierarchy as the leader of the region, and the flag for symbolizing the land, *considering themselves the true Argentinians* who first populated the current territory (Chiquichano, 1998).

The process of changing social customs requires cultural changes. One possible way to achieve these changes is to apply a measure from individual psychology: *Restorative Justice* (Zehr, 2015). At the individual level, it involves promoting participation in restorative justice programs, where offenders work with victims to understand and repair the harm caused. This can help promote repentance and empathy. At the social level, it would involve showing the harmful effects of pigmentocracy through social media, including descriptions and effects of pigmentocracy in curricula at all educational levels, and promoting shared experiences among different social groups to foster social empathy at the primary and secondary levels.

Other possible measures can be inspired by the Swedish education system. In Sweden, to promote ethnic and cultural inclusion, inclusive curricula are scheduled, where students learn about different cultures, religions, ethnic backgrounds, and principles of equality. In this system, all students receive the same quality education, there is multicultural training for teachers, activities that celebrate cultural diversity, linguistic support, approaches that promote values of respect, empathy, and mutual understanding, and strict policies against harassment and racism (Ferguson-Patrick, 2020; Berhanu, 2011).

5.2 Solutions to Avoid Indigenous Contempt

5.2.1 Factors to Consider

- Seven out of ten members of indigenous communities reside in urban areas (INDEC, 2015) and do not live as stereotyped by the collective imagination. They are Argentine citizens living in urban centers and participating in society with their compatriots but feel part of indigenous peoples' communities, sharing memories, customs, and practices.
- Genetic admixture occurred for over 450 years, creating a continuum where there are no defined limits. External phenotypic traits do not define individuals, and an Argentine citizen who considers themselves white may be genetically more Amerindian than a self-defined indigenous person, and vice versa.
- Admixture is not only genetic but also cultural. A vast number of Argentine citizens share European and Amerindian ancestors, inheriting customs and social behaviours they now share. For example, many phonetic features of the Spanish spoken in different provinces originated in pre-colonial indigenous languages. In Córdoba, the lengthening of vowels may be a vocal heritage from the Sanavirones or

Comechingones, and intonation, phonetics, or some typical words from northwestern Argentina may be inherited from Kakan, the pre-colonial language of the Diaguitas (Lang-Rigal, 2014; Piispanen, 2021).

- Pigmentocracy further complicates the problem, as the same individual, depending on the context, can be the sender or receiver of prejudice.
- The inequality and discrimination generated by pigmentocracy over centuries caused social differences in economic and educational terms that remain stable over time. The analysis of law non-compliance factually demonstrates differences across the country.
- Argentine history is incomplete as it does not incorporate indigenous historical memory or worldviews. It is a mistake to think that low technological development implies lower ethical development. Technological development can occur at the expense of ethical considerations, such as environmental degradation, population extermination during natural resource exploitation, or misuse of technology detrimental to human rights. For example, a supposedly technologically primitive people like the Yaganes, inhabitants of the archipelago in the southern part of the American continent for thousands of years before the arrival of Europeans, had significant ethical, spiritual, and social development, objectively superior in many aspects to the developed societies that dominated and almost exterminated them (Rossi, 2006; Marchante, 2019). An alternative view of our species' development is to resume our ethical evolution from where these supposedly underdeveloped and wild peoples were and deepen our respect and affection for the non-human natural world and a shared consciousness with our fellows despite our differences (Narvaez, 2013). Incorporating the worldviews of all our indigenous peoples will help in this regard.
- Recognizing that Spanish heritage also left positive things in practically all areas of daily life.
 - O The Spaniards brought cattle such as cows, pigs, and goats that provided proteins on a large scale and helped eliminate cannibalism (Prebisch, 1991). They introduced new plant species such as rye, barley, oats, and wheat, fruits like melons, peaches, apricots, figs, oranges, lemon trees, or vines and olives. They also introduced nuts such as almonds, walnuts, chestnuts. Vegetables such as peas, garlic, onions. Textile plants like cotton and legumes, rice, and plants like sugarcane, which is the basis of many industries in Argentina today. They also brought to America cattle, donkeys, mules, and horses that liberated the indigenous people from functioning as beasts of burden.
 - They eliminated human sacrifices.
 - They introduced beekeeping and the production of wax candles, replacing torches.
 - They introduced the wheel and the cart, as well as the pulley, the hoist, and the crane to move large weights.
 - They introduced written alphabet, the plow replacing the hoe; wheat, bread, sausages, sugar cane, olive oil, vines, wine, cheeses, and other dairy products, almonds, cinnamon, pepper, and other spices. The cultivation of mulberry

- trees and silk production, woven and woolen garments, the production and shearing of fabrics using water wheels, etc.
- O They introduced iron, muff furnaces, forges, bellows, tempered steel, crossbows, swords, horsemanship, gunpowder, artillery, the compass, the manufacture of sail ships, rudder, and oar (barges), and the art of handling them, saws for cutting wood, shipyards, the construction of navigation canals, the Roman arch, domes, lobbies, windows, hinged doors, locks, etc.
- They introduced mines of gold, silver, lead, hematite, etc., and the "benefit" of amalgamation based on mercury for extracting silver from the ore.
- O They introduced paper, the writing of indigenous terms in the Latin alphabet, handwritten and printed books, dictionaries, and grammars in indigenous languages, teaching indigenous people Latin and European painting, sculpture, poetry, and music, teaching pottery, blown glass, adobe (of Arab origin), carpentry and joinery, furrier trade, leather tanning, goldsmithing, and other arts and crafts.
- Although Spain never stood out and historically held a disdain for hard sciences, this 'deficiency' was offset by an enormous artistic development. Its influence in America in architecture, painting, sculpture, and literature was significant. In music, Spain introduced instruments such as the guitar, violin, and organ, among many others, as well as a wider musical scale than the indigenous pentatonic scale and a melodic and poetic repertoire, transmitted both orally and through songbooks (Bernand, 2009). Currently, Spain is the second country in the world, and the first in Europe, with the largest number of properties inscribed on UNESCO lists (World Heritage List and Representative List of Intangible Cultural Heritage). In total, it has 65 properties of cultural, natural, and intangible heritage, of which 47 are cultural and natural properties, 15 are intangible manifestations, and 4 are projects for good practices for the safeguarding of intangible heritage. Spanish culture comes from a huge mix of influences that is reflected in its complex and cosmopolitan worldview, and it is present in multiple popular artistic expressions.

5.2.2 Solutions

To address the root problem, namely political instability stemming from toxic social behaviours, efforts must be made to have people formally accept authority, not through external imposition but through a insight, practical effect of *intentional cultural change* (Biglan, 2013). In the specific case of contempt for white authority, some possible actions are:

- 1. Alejandro Lipschutz's Dual Patriotism (Berdichewsky, 1992): This involves a nation with awareness of its indigenous people and indigenous individuals with awareness of their nation. This dual patriotism could generate a favorable synergy for the country's development.
- 2. Incorporation of Indigenous Struggles in History Books: Highlight indigenous resistance against Spanish invaders, emphasizing heroes from various indigenous

- groups. Narrate history from the indigenous perspective, such as the lives of Juan Calchaquí, Isabel Pallamay, Miguel Chepoyá, or María Remedios del Valle.
- 3. Change Perception of Indigenous Communities: Stop treating current and past indigenous peoples as isolated groups and begin recognizing them as Argentine citizens with American cultural roots. For example, instead of saying "Diaguita artist representative of ancestral communities", say "Argentine artist with Diaguita roots".
- 4. Equalize Educational Infrastructure: Ensure that schools and high schools across the country, including those attended by Wichi communities in Chaco, Salta, or Formosa, have the same standard as a school in the center of CABA.
- 5. Cultural Attack on Pigmentocracy: Bring pigmentocracy to public attention, discuss it, and expose its effects.
- 6. Highlight Discriminatory Content in Social Media: Expose discriminatory content in social media, such as advertisements that only emphasize stereotyped European models.
- 7. Indigenous Participation in Lawmaking: Involve indigenous peoples and their descendants in the formulation of public laws at various levels, including neighborhood, communal, municipal, provincial, and national levels.
- 8. Promote Citizen Participation in Law Creation: Foster citizen participation in creating norms and laws at different levels, aiming to develop a love for the law from childhood.
- 9. Community centers, to be added to the existing centers in all provincial capitals. For example, alongside Galician, Sicilian, German, or Croatian centers, the construction of Huarpe, Diaguita, Wichi, and all those communities that feel the need to do so, as a means to showcase their cultures.
- 10. Cement Identity: Complete the official history by incorporating everything that happened during the Spanish conquest and colonization of Argentine territory, including the indigenous perspective.
- 11. Resolution of Territorial Conflicts: Based on historical analysis, a possible solution is to grant disputed lands through a system of rights and obligations similar to that of European immigrants in the late 19th and early 20th centuries.
- 12. To understand that the current geographical dispersion of the indigenous peoples is not an ancestral situation, not something sought by its inhabitants, but rather a way to resist the conqueror by moving away from their original cities devastated by wars and abandoned due to estrangement. At least in Argentina, the evolution of pre-colonial indigenous cities came to a halt, persisting to this day in the form of isolated and scattered population groups. One possible solution is to resume the cohesive path of creating cities, updated for the 21st century and within the legal framework of the Argentine Republic.
- 13. Recognize Argentina as a Multicultural Country: Acknowledge Argentina as a multicultural country where various languages, including Español, Quechua (Albarracín, 2005), Español andino (Chang, 2021; Teran, 2018), Guaraní (Ley 5598, 2004) and Mapundungun (Zúñiga, 2022) are spoken.
- 14. Incorporate Indigenous Worldviews: Rescue and integrate the worldview of indigenous peoples into Argentine culture, benefiting society in areas such as

- environmental care, social integration, biodiversity, religious tolerance, and cultural pluralism, among others (Astor-Aguilera, 2016).
- 15. Promoting the arts as a means of integrating the culture of indigenous peoples into the cultural heritage of Argentina is crucial. It is essential that cultural production be the direct vision, without intermediaries, of artists self-recognized as indigenous to avoid any form of voluntary or involuntary paternalism that may distort the indigenous worldview.

5.3 Solutions to Avoid Contempt for Authority

5.3.1 Factors to Consider

- Spanish conquerors and colonizers in America, particularly in Argentina, had no laws generated by consensus among inhabitants from the early 16th century until the independence of Spain in 1810.
- Criollos, or children of Spaniards in America, began generating their own laws only after 1810.
- Attempting to create laws in the independent country became challenging due to the pigmentocracy, which generated a caste system, particularly inhibiting the participation of indigenous peoples.
- The dispersed inhabitants of Argentina had minimal effective participation in law generation, considering vast distances between cities, lack of roads, and historical contexts with precarious or nonexistent communication.
- This situation led to chaos throughout the country, especially between 1827 and 1854 when there was no formal presidential figure in the independent country.
- The Argentine constitution is deeply inspired by a critical review of constitutions by lawyer Juan Bautista Alberdi, primarily using the constitution of the state of California in the United States as a model.
- It should be taken into account that the constitution of the state of California follows guidelines of Anglo-Saxon culture, which is different from the Hispanic-American culture.
- The significant number of law violations demonstrates the inadequacy of applying or enforcing current punishments.
- It doesn't seem to be a solution to "harden" punishments or generate new ones through the existing legislative system. It emerges from our analysis that changing customs underlying behaviours is necessary before legislating.
- It is not a social custom in Argentina to penalize violations in the internal regulations of Non Gubernamental Organizations, such as property consortia, cooperatives, mutuals, foundations, or similar entities. For example, the internal regulations of consortia describe obligations in detail without specifying sanctions for non-compliance or leaving this task to the administrator's discretion. This situation is similar to the lack of described sanctions in the CONICET regulations regarding intellectual property, showing an underlying social behavioral pattern. This situation also repeats in the internal regulations of football clubs.

5.3.2 Solutions

To address the underlying problem, namely political instability as a result of toxic social behaviours, efforts should be made to make people appreciate authority and punishments not as external impositions, but as insights resulting from *intentional cultural change* actions implemented by the state (Biglan, 2013). A set of possible solutions includes the following:

- Incorporation of punishments for non-compliance in daily life: Before enforcing
 existing laws, they should first be implemented in primary-level organizations. For
 example, in various NGOs, football clubs, consortia, neighborhood clubs, and even at
 the household level, albeit on a personal basis but encouraged by the state. This
 involves explicitly and detailedly incorporating sanctions for non-compliance in the
 internal regulations of all NGOs, including compensation for damages and all related
 costs.
- 2. Installation of the concept of social shame by implementing the loss of Public Faith: The state will focus on monitoring non-compliance by targeting a specific individual as a punitive action for repeated violations of laws or norms. This involves directing the state's computer algorithms towards monitoring tax compliance, provincial and municipal taxes, traffic violations, economic crimes, administrative offenses, and other previously listed offenses.
- 3. Encouraging citizen participation in the creation of norms at different levels: Citizens' involvement in creating norms at various levels, from household to national, can foster a sense of ownership, promoting overall compliance with laws. The ordinary citizen can participate in the creation of norms that originate from cultural habits specific to Argentinians, which can serve to reaffirm their own identity. Examples:
 - a. The consumption of beverages and infusions in public spaces, sports centers, and recreational areas.
 - b. The keeping of domestic animals in cities.
 - c. The naming of places, streets, and public spaces in both urban and rural areas.
 - d. The use of beaches as recreational and leisure areas.
 - e. The planting of trees in public spaces and recreational areas.
 - f. The trade of traditional beverages and foods: aloja, añapa, tereré, patay, catuto, etc.
 - g. The trade of traditional crafts.
 - h. The forms of communication and accountability of the state
- 4. Create new forms of citizen participation in the administration of public affairs. Examples:
 - a. Autonomous community citizen centers per city block or group of city blocks, to discuss and resolve common issues with the support of the municipal executive power.

b. Member with a voice but without a vote, randomly chosen from eligible voters, to participate in the deliberative councils of each municipality or commune in Argentina

5.4 Application of Intentional Cultural Evolution

The primary cause leading to the non-compliance with the law is contempt for authority. This human sentiment, within the context of this work, cannot be eradicated through punitive laws or authoritarianism. Observing Argentina's painfully long history of failures in this regard makes it clear that people cannot be compelled to feel something. The problem and its solution lie within the cultural realm, and cultural problems are resolved within the same domain – that of culture. Globally, cultural changes have succeeded in getting people to quit smoking (Nichter, 2003), recognize gender equality, refrain from urinating or defecating in public spaces (Doron, 2014), and, in our particular case, appreciate authority.

In the case of Argentina, potential changes can be approached by employing a cutting-edge branch of science known as Intentional Cultural Evolution (Wilson, 2016). This new science aims to influence the incidence and prevalence of individual behavior and group actions to prevent problems affecting human well-being. In a publication by senior scientist Anthony Biglan from the Oregon Research Institute in the U.S., it is mentioned that this science is guided by values and aspires to a world where the basic needs of all individuals, including adequate food and shelter, optimal health, protection against avoidable harm such as diseases, natural disasters, toxic substances, or attacks by others, are fulfilled (Biglan, 2013).

To apply this science to Latin American and Argentinean issues in particular, we can also consider the satisfaction of basic needs as defined by the Chilean intellectual, economist, environmentalist, and politician Max-Neef. His definitions stem from the idea that development pertains to people and not objects, and they include subsistence, protection, affection, understanding, participation, leisure, creation, identity, and freedom (Max-Neef, 1992). All values from Biglan, and even more, are encompassed in Max-Neef's definitions.

The strategies and concrete actions required to solve the outlined problems constitute a long-term task that exceeds the scope of this work. Planning and execution should be undertaken by a highly interdisciplinary and inclusive team, composed of representatives from all the social groups described in our studies.

6. Conclusions

Indigenous contempt for the white man's law originated in the hatred sparked among native peoples by the mistreatment of the Spanish conqueror. This sentiment persists in society, now expressed as contempt for authority and devoid of the original memory. Due to extensive genetic mixing, the customs associated with contempt are distributed at different intensity levels across all social strata. This implies that law violations are not exclusive to those self-defined as indigenous; they are also inherent in the entire society due to the social gradient generated by pigmentocracy.

The contempt for the authority of the white man can now be summarized as "I obey but I do not execute because it is not my law" (se acata pero no se cumple porque no es mi ley). All historical information indicates that, in no case, were the indigenous people consulted about the laws that would govern their lives during the conquest, colonization, or the independent period of Argentina; in other words, these laws were imposed on them.

The contempt of the Spanish in America for the authority of the crown originates from the absence of punishments due to ineffective control, both for economic reasons prioritizing the flow of wealth from America to Spain at the expense of justice, and due to insufficient communication technology that prevented awareness and reaction to events within reasonable timeframes. This type of contempt for authority can be summarized in the phrase, and 2) "I obey but I do not execute because there is no punishment" (se acata pero no se cumple porque no hay castigo).

Both forms of contempt culturally merged due to pigmentocracy, becoming nearly indistinguishable in practice. Contempt for authority is the root and main cause of current political instability and is also the predominant social behavior pattern among the inhabitants of the Argentine Republic.

The proposed sets of solutions are primarily based on producing intentional cultural changes, where it is necessary to first change the customs that underpin behaviours, and only then enact legislation.

7. Suggestions for Politicians

The conclusions of this paper cover highly sensitive social aspects for Argentine society. Our results can be seen as a set of data and suggestions for political decision-making, which must be planned with great caution and based on consensus. Participants should come from the government, non-governmental organizations, sociologists, statisticians, scientists, psychologists, historians, economists, and all the necessary specialists to design public policies. It is crucial to consider ethnicity when planning public policies. An extreme example is the measures to be taken to reduce suicide rates in our indigenous communities.

8. Limitations of the Work

We tried at all times to avoid ideological polarization or bias in the collection and analysis of historical information, but there may be some cultural bias in our interpretation of the accumulated data. In our papers, we apparently attribute contempt for authority as the sole cause of political instability, despite multiple publications citing other reasons such as unequal land distribution or the lack of institutions to support economic growth. However, we believe that contempt for authority is the primary cause, as it gives rise to corruption, fragility of public institutions, ethnic tensions, lack of citizen participation, law non-compliance, and violation of human rights, among other possible effects.

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Appendix

S1 Social Patterns Time Evolution

Table 1. Past and Present Social Behaviours Pattern Analysis

Contempt kind	Violation of colonial laws	Violation of actual laws	Pattern similarity
Spaniard	Free men	Law superseded in 1853	People were enslaved despite the prohibition. Formally, it disappeared in 1853, but in practice, it continued, manifested through mistreatment, deplorable working conditions, territorial dispossession, cultural invisibility, or genocides.
Spaniard	Good Treatment to Indigenous	Accidents at work, Unregistered labour (measured), Employment Contract Law (not measured).	Indigenous people were mistreated despite the prohibition. This included physical violence and deplorable working conditions. In the present, it translates to a lack of pension or retirement contributions, health insurance, overtime pay, and timely payment, among other deficiencies. It is a behaviour of dual origin: employers who disdain their employees (Spanish origin), and employees who disdain their employers and their rules (Indigenous origin).
Spaniard	Recognize Territories	National Constitution, Laws on indigenous territories, ILO Convention 169 (All are unmeasured).	Indigenous territories were not recognized. The lack of territorial recognition has persisted from the beginning of the conquest to the present day.
Spaniard	Slave labour	Accidents at work rate/1000 workers; Unregistered work; Lawsuits rate/100000 workers	In colonial times, the slave labour implied an obligation to work, often under deplorable conditions. Today, it means the absence of pension or retirement contributions, health insurance, overtime pay, and timely payment, among other deficiencies. It is a behaviour of dual origin: employers who disdain their employees (Spanish origin), and employees who disdain their employers and their rules (Indigenous origin).
Spaniard	Smuggling	Administrative crimes rate/100000 inhab.; Economic rate/million inhab;	Foreign products were brought in without authorization and by evading taxes. This behaviour has remained the same from the 16th to the 21st century, involving massive tax evasion.

		Money laundering rate/10 million inhab.	
Spaniard	Tax evasion	Administrative crimes rate/100000 inhab.; Property Tax Collection (1-PTC); Tax Inefficiency A (% effective collection); Tax Inefficiency B (% Gross income); Economic rate/million inhab; Vertical Fiscal Imbalance (1-VFI); Money laundering rate/10 million inhab.; Illegal Street Trading (IMS/100000 inhab.)	Taxes to the Royal Crown were not paid. This behaviour is deeply ingrained in society and is part of Argentina's cultural history. It includes both tax evasion during colonial times and modern evasion of property tax, value-added tax, or import/export duties, among many other examples. The behaviour can be active, by not paying a tax, or passive, by not collecting a tax. In the latter case, the state itself is the one violating the law. Each evasion can be associated with other violations, such as administrative corruption or the use of privileged information.
Indigenous	Blocking roads *	Deaths in Traffic Accidents (Fatality rate/10000 reg.veh.); Traffic infractions/10000 vehicles	Roads were blocked, violating the constitutional right to free movement on Argentina's routes and roads. It is a practice of contemporary Indigenous resistance, but also a common form of protest throughout the country. Roadblocks can violate the Constitution, Traffic Law, Municipal Codes, Penal Laws or Civil Code.
Indigenous	Broken traffic laws	Deaths in Traffic Accidents (Fatality rate/10000 reg.veh.); Traffic infractions/10000 vehicles	Multiple traffic laws were broken. It is a widespread contemporary practice in Argentina. It includes everything from double parking to driving against traffic on a highway. The highest number of deaths from traffic accidents occurs in the northern provinces of Argentina, where the highest concentration of Amerindian and African genes is also found. These coincidences suggest that it may be another form of Indigenous resistance, but without historical memory.

Indigenous	Criminal gangs *	Detainees in police stations/100000 inhab.; Incarcerated population rate/100000 inhab.	Criminal gangs were formed. From a demographic perspective, the incarcerated population in Argentina predominantly comprises the least educated individuals in society. In 2019, over 82% of those imprisoned had incomplete secondary education or less (UNTREF, 2020). The correlation coefficient between the illiteracy rate by province and the number of detainees in police stations is CC=0.58, indicating an acceptable mathematical relationship between the two variables.
Indigenous	Graffiti on walls *	Detainees in police stations/100000 inhab.; Incarcerated population rate/100000 inhab.	Graffiti was drawn on walls. Resistance during the colonial period manifested through the destruction of symbols of colonial power, such as chapels, forts, or crosses. Today, it manifests through graffiti on chapels or on social media. A clear example was manifested in Canada, where the rate of police-reported crime was found to be six times higher in Indigenous communities than in non-Indigenous communities (Allen, 2020). The most common transgressions helped explain the large difference between the crime rates of Indigenous and non-Indigenous communities, including transgressions such as vandalism, graffiti, and reckless destructive or obstructive behaviours. These seemingly rebellious behaviours were interpreted as reflecting contempt for the authority of whites.
Indigenous	Illegally occupy land	Detainees in police stations/100000 inhab.; Incarcerated population rate/100000 inhab.	Land was illegally occupied. The problem has persisted unchanged over time, from the return of the displaced Diaguitas to their ancestral lands to the "illegal" occupation by the Mapuches of their ancestral lands.
Indigenous	Leaving workplaces	Employment Contract Law (not measured)	Workplaces were abandoned. After being displaced, the Diaguitas abandoned their forced labour and returned to their ancestral lands.
Indigenous	Not fulfilling mita shifts	The mita was repealed in 1813	
Indigenous	Not obeying encomenderos' orders	Accidents at work rate/1000 workers	The encomenderos' orders were not obeyed. A modern equivalent of this behaviour is the reluctance of construction workers to use personal protective equipment. It is also characteristic of public employees who do not comply with their work schedules or obligations.
Indigenous	Reducing productivity	Employment Contract Law (not	Productivity was reduced. Disinterested work is typical of Argentine public employees, as evidenced by the losses of state-owned companies in aviation, railways, or oil, among others,

		measured)	which can be considered unproductive.
Indigenous	Refusal to provide military service	Military service was abolished in 1994.	
Indigenous	Refusing to work	Employment Contract Law (not measured)	Public employees known as "ñoquis" were paid their salaries without performing any work.
Indigenous	Stealing cattle	Detainees in police stations/100000 inhab.; Incarcerated population rate/100000 inhab.; Electricity theft (%)	Cattle were stolen, and livestock theft or rustling is a widespread practice in Argentina today.
Indigenous	Stealing tools	Accidents at work rate/1000 workers; Detainees in police stations/100000 inhab.; Incarcerated population rate/100000 inhab.; Electricity theft (%)	Tools were stolen from nationalised companies over time. An example was the nationalisation of the Argentine railways, which, after being nationalised, suffered a slow and inexorable decline that ended with the railway system, where cable, sleeper, and equipment thefts were abundant.
Indigenous	Tax evasion	Property Tax Collection (1-PTC); Tax Inefficiency A (% effective collection); Tax Inefficiency B (% Gross income); Vertical Fiscal Imbalance (1-VFI); Illegal Street Trading (IMS/100000 inhab.)	Tax evasion was a behaviour exhibited by Indigenous people under Spanish rule. It was a form of indirect resistance, as they could not oppose by force. A detailed description can be found in the section "Contempt for Authority as a Way of Resistance" in Felice and Ruiz, 2024b. In the 21st century, it has become a widespread behaviour in society, a legacy of both Spanish and Indigenous origins, transmitted across generations.

Indigenous	Working slowly or unwillingly	Accidents at work rate/1000 workers	Work was performed slowly or unwillingly. During the various stages of the transformation from slave labour to unregistered labour, as described in Felice and Ruiz, 2024a, the adjectives used to describe Indigenous workers, labourers, or modern "unregistered workers" were and are slow, unwilling, lazy, rebellious, unpredictable, or undisciplined. These adjectives describe a form of resistance, which may or may not be tied to memory of its origin, depending on the historical context in which it is analysed.
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